CHAPTER 5

CRITICAL EVALUATION OF FINANCIAL MANAGEMENT PERFORMANCE USING DEVELOPED INDICATORS

5 CRITICAL EVALUATION OF FINANCIAL MANAGEMENT PERFORMANCE USING DEVELOPED INDICATORS

Substantial expenditure has been incurred by the Government of India as well as different states including Gujarat in last few decades on rural water supply schemes. However, very little is known on how effective this expenditure has been in providing safe water to rural people on sustainable basis. Also, hardly there is any analysis of the cost of water supply schemes, cost recovery and the impact of technology choice and institutional arrangements on the cost of service is done. The present study is done with the main intention of providing directions and alerting the policy makers with respect to the functionality and sustainability of the Regional Rural Water Supply Schemes with the inclusion of financial aspects.

5.1 Methodology adopted

Combination of data collected by house hold survey and fund flows from Gujarat Water Supply and Sewerage Board (GWSSB) has been collected. Data collected covers the four representative schemes and several other schemes of South & Central Gujarat and Saurashtra region which are implemented by GWSSB. The survey data relates to 2007-08 and the other data collected from GWSSB covers the period from 2005-2010.

5.2 Unit Cost

Knowledge of the real unit cost of the water is essential to understand the financial health of the scheme, and also for setting of appropriate tariffs. Usually, the Unit cost is categorized into two main

components, namely, Capital cost and Operation and Maintenance (O & M) cost.

5.2.1 Capital Cost

In typical Institutional arrangement of India, the fund flow for supply-driven and demand-driven rural water schemes is reported as shown in Figure 5.1.
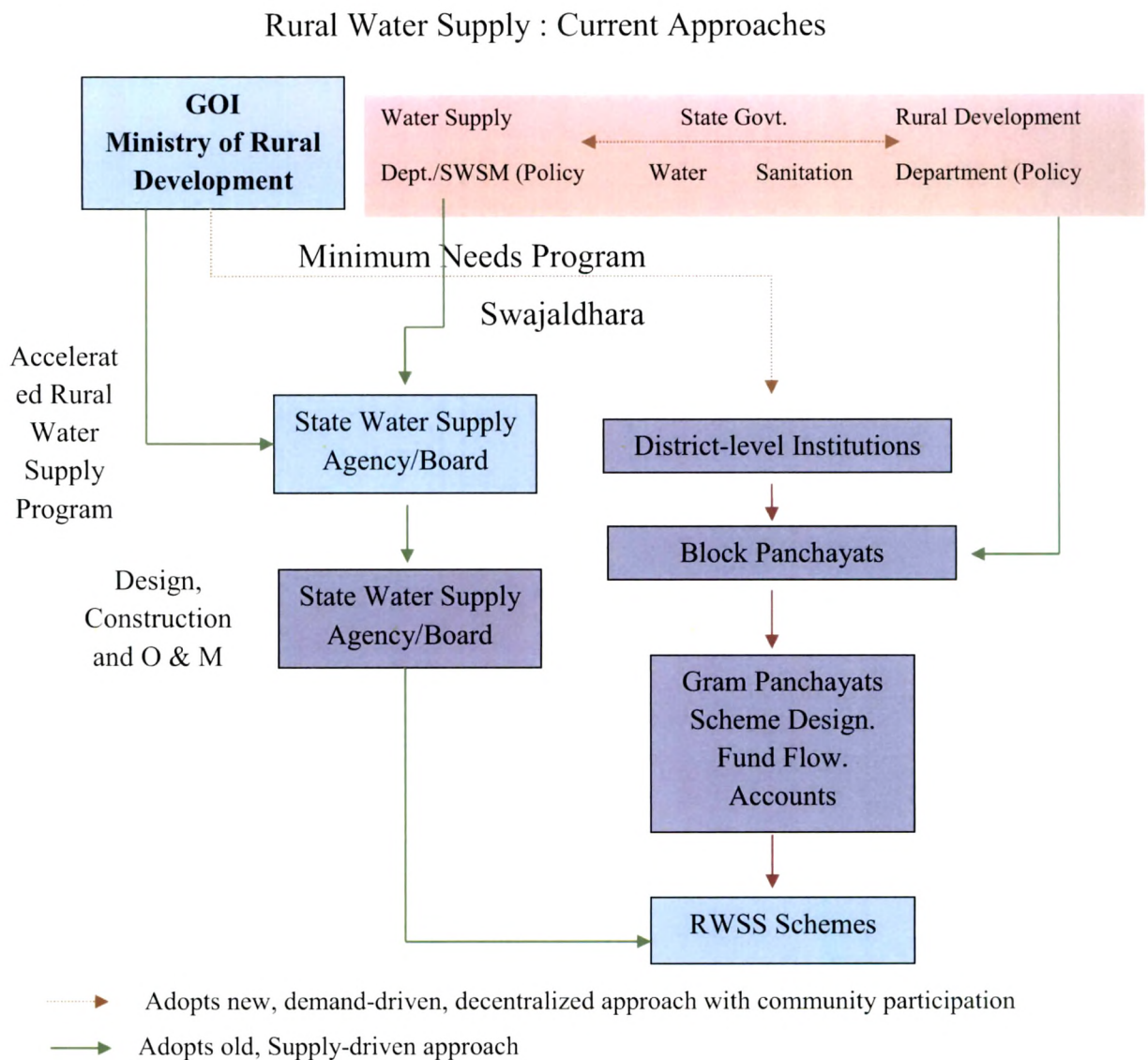
Rural Water Supply : Current Approaches

Figure 5.1 Chart showing Key Institutions and financial flows-current approaches (Source: Report of World Bank, 2008 on Review of effectiveness of Rural Water Supply Schemes in India)

It is also revealed from World Bank studies (2008) in India that typically capital costs are relatively much higher in supply-driven schemes than demand-driven. Further in multi village or regional schemes with piped water supply, the capital cost averages to Rs. 6000 per household (2005-06 prices) (Rs. 10,000 or more in 16% cases & Rs. 20,000 or more in 4% cases per household), however this varies greatly with local conditions.

5.2.1.1 Capital Cost of Investments in RRWSS Under Study

In RRWSS of Variav group, Surat, the cost of the approved scheme was Rs. 94.46 crores out of which expenditure incurred was Rs. 53.14 crores till 2005 (1st phase) which was borne by the GWSSB. In phase-2 the major part is covering the urban area of Surat Municipal Corporation which was completed in 2008. Time of completion of this project has been more than three years due to heavy rain and delay in getting permissions from railway and forest departments. The Cost Per Capita worked out as:

    a. As per Year 2003   :   Rs. 1295.12

    b. As per Year 2011   :   Rs. 1036.09

    c. As per ultimate stage (2034): Rs. 972.82

In RRWSS of Gadhada group, Bhavnagar, the total estimated cost of the scheme was Rs. 36.87 crores, as shown in Table 5.1. However, the actual expense till the completion of the scheme was Rs. 27.70 crores. Reason for the savage in capital cost is due to change in the alignment of bulk water pipeline during construction phase. The cost per capita is worked out to be Rs. 2298.52 (Year 2011) and Rs. 1470.90 (Year 2031). The cost per KL is worked out to be Rs. 5.80 (Year 2011) and Rs. 3.71 (Year 2031).

Table 5.1 Showing Details of Cost of the RRWSS Gadhada Group, Bhavnagar

Sr. No.	Name of Group	No. of Villages	Gross Cost in Rs.
1	Group Common Components	----	3,06,72,120
2	Holaya Group (No.12)	13	5,71,24,600
3	Viravadi Group (No.13)	21	11,58,10,000
4	Raliyana Group (No.14)	24	12,23,25,000
5	Adtala Group (No.15)	09	4,27,58,200
	Total	**67**	**36,86,89,920**

In RRWSS Ishwaria group, Amreli, the total estimated cost was Rs. 13.75 crores against the actual expenses of Rs. 13.98 crores in year 2003, on the completion of scheme. The reason for higher expenses was due to higher cost in railway crossing works, little change in site of head works and pipe line alignment. The cost per capita is worked out to be Rs. 1470 (Year 2001 census) and Rs. 837 (Year 2031). The cost per KL is worked out to be Rs. 2.51 (Year 2031).

In RRWSS Mandvi group, Kachchh, the total estimated cost was Rs. 15.12 crores against the actual expenses of Rs. 11.61 crores; however the work for 2nd phase not fully completed till 2007-08. The cost per capita is worked out to be Rs. 1607 (Year 2001 census) and Rs. 1071 (Year 2031). The cost per KL is worked out to be Rs. 2.11 (Year 2031). Table 5.2 summarizes the capital cost of above four RRWSS of the study undertaken.

Table.5.2 Showing Capital Cost of Various RRWSS Under Study

Sr. No.	Name of the RRWSS	Typical features	Capital cost per capita	Capital cost per KL	Remark
1.	Variav Group, Surat	Source: surface water (perennial river Tapi) Ultimate capacity: 93.16 MLD + 24.72 MLD Surat city + Rural area Ultimate population: 9.71 lacs (Year:2034)	Rs. 972.82 (Year:2034)	Rs. 1.33	Source is near to supply and most conveyance is through gravity
2.	Gadhada Group, Bhavnagar	Source: Bulk water supply by Mahi-pariej pipe line from weir constructed on river Mahi Ultimate capacity: 17.55 MLD, Ultimate population: 2,50,655 (Year:2031)	Rs.1470.91 (Year:2031)	Rs.6.53 (Year:2001) & Rs.3.71 (Year:2031)	Source is away from region and conveyance rely on bulk water supply through pipes under pressure
3.	Ishwaria Group, Amreli	Source: Bulk water supply by Mahi-pariej pipe line from weir constructed on river Mahi Ultimate capacity: 7.36 MLD (Mahi pipeline) + 9.2 MID (Narmada Pipeline) = 16.5 MLD Ultimate population: 1, 64,314 (Year:2031).	Rs. 1470 (Year:2001) & Rs. 837 (Year:2031)	Rs. 2.51	Source is away from region and conveyance rely on bulk water supply through pipes under pressure
4.	Mandvi Group, Kachchh	Source: Surface water through NC 11 & NC 22 of Maliya Branch of Narmada Canal Ultimate capacity: 8.10 MLD Ultimate population: 1,08,394 (Year:2031)	Rs. 1607 (Year:2001) & Rs. 1071 (Year:2031)	Rs. 2.11 (Year 2001)	Source is away from region and conveyance rely on bulk water supply through canal & pipe network

It has been noted that in most of the RRWSS, overall capital cost found out in the range of Rs. 800-1700 per capita. These capital costs are low due to reasons that the cost is shared by number of villages or habitations and many villages are involved which averages the high initial investments of the scheme.

5.2.1.2 Operation and Maintenance (O & M) Cost for Various RRWSS

$$Indicator = \frac{Total\ O\ \&\ M\ cost}{KL\ of\ water\ supplied\ and/or\ Per\ Capita/Annum}$$

Operation & Maintenance cost mainly include the cost of pumping or lifting (electricity bills) the water from its source to the treatment plants and/or to the head works, cost of chemicals in water treatment plants including alum (in surface water sources-seasonal) & chlorine (in ground water and surface water), cost of maintenance, repairs & replacements (M & R) for various operative/moving parts and equipments including pumps, treatment plant equipments and the overall salaries of administrative and maintenance staff.

A component-wise break-up of the O & M cost per KL for RRWSS is important, as several components like cost of pumping or the electricity bills play an important role in the overall O & M of the scheme. The study has been carried out for the schemes undertaken for the study.

In RRWSS Variav group, Surat, the overall annual O & M costs are found out for the year 2006-07 (Table 5.3). It is noted that the actual O & M expenditure was Rs. 66.40 /capita. The O & M cost of water was Rs. 2.56/ KL. It is also noticed that there was a heavy flood in the Surat city for year 2006, in which a significant damage was occurred in the main pipe lines and pumping machineries. This has also increased some cost of Maintenance and Repairs for that year.

Table 5.3 Showing Actual O & M Cost in RRWSS Variav group, Surat (Year 2006 – 07)

Name of sub head works	Number of villages included in the scheme	Benefited Population (Year 2001)	Actual expenditure on O & M for Year 2006-07 (Rs. Lacs)
Sandhiyer	35	57045	39.65
Panesara	38	72910	37.29
Ambheta	7	5785	20.80
Dumas – I	9	27470	20.50
Dumas – II	4	4816	12.84
Hajira	15	59998	27.82
Budia	10	67423	37.30
Total	**118**	**2,95,447**	**196.20**

In RRWSS Gadhada group, Bhavnagar, the overall annual O & M charges are found out for the year 2006-07. It is noted that the actual O & M expenditure was Rs. 45.20 lacs against the estimated cost of Rs. 53 lacs, that is less by 14.71%. The O&M cost on present population is determined as Rs.29.40 /capita and Cost of water for O & M is determined as Rs. 2.06/KL.

In RRWSS Ishwaria group, Amreli, the overall annual O & M cost was found out for the year 2006-07, which is as per table 5.4.

Table 5.4 Showing Actual O & M Cost and Its Components in RRWSS Ishwaria group, Amreli

O & M cost components	Actual Cost
Chlorination	Rs. 8,57,760
Annual maintenance contract (manpower)	Rs. 12,00,000
Repairing of miscellaneous components	Rs. 30,000
Establishment	Rs. 6,20,196
Fuel	Rs.35,980
Chemicals	Rs. 66,253
Charges for raw water to water resources department borne by GWSSB	Rs. 1 per Kilo Litres Therefore, for 5 MLD Rs. 13,25,000 for an year
So, Total O & M cost (2006-07)	Rs. 43.25 lacs/98,000 souls = **Rs. 42 per capita** **& Rs. 3.26 per Kilo Litres** **(Supply about average of 5 MLD)**

In RRWSS Mandvi group, Kachchh the annual O & M has been given to the private agency for Rs. 5,50,000 gross for running the treatment plant of 9.85 MLD. The establishment charges for the year 2006-07 was Rs 5,30,859. Estimated O&M charges for electric consumption were about Rs. 3 Lacs per year. It is also estimated that about 3600 Kg of Chlorine gas & about 3000 Kg of Alum used for water disinfection and treatment. It is also noted that for year 2005-07 the water from NC-11 line was not received satisfactory and therefore some expenditures for last two years were reduced. However, the overall Per Capita Cost for O & M on present population is Rs. 54.79 (2006-07).

Table 5.5 summarizes the O & M cost of above four RRWSS. This shows the high variation in the cost from scheme to scheme.

Table.5.5 Showing Actual O & M Cost of Selected Four RRWSS (Year 2006-07)

Sr. No.	Name of the Scheme	Actual O & M cost		Remark
		In Rs. per capita	In Rs. per KL	
1.	Variav Group, Surat	66.40	2.56	In year 2006, major flood damaged main pipes and pumping machineries at different head works
2.	Gadhada Group, Bhavnagar	29.40	2.06	------
3.	Ishwaria Group, Amreli	42	3.26	------
4.	Mandvi Group, Kachchh	54.79	N.A.- As actual rate of supplied water is not available for year 2006-07	Requires long distant for conveyance through pipe lines and pumping cost

Further the detailed analysis has been carried out to determine the break-up of the total O & M cost in various RRWSS of South and Central

Gujarat is given in Annexure III and the average cost in surface water and ground water based schemes are as shown in table 5.6.

Table.5.6 Showing Average Cost of O & M in Various RRWSS of South & Central Gujarat (Based on Source of Water)

Type of RRWSS	Average Cost of O & M Cost Component						
	Cost of Raw water Rs./ KL	Treatment cost Rs./KL	Pumping cost. of water Rs./KL	O & M of Distribution pipeline Rs./KL	O & M of P.M. Rs./KL	Total Exp. for Distribution Rs./KL	Grand Cost in Rs./KL
Ground water based RRWSS	0.00	0.10	2.33	4.24	0.56	7.22	7.22
Surface water based RRWSS	1.14	1.0454	2.5885	1.1546	0.2269	5.0154	6.1531

Figure 5.2 & 5.3 show the Graphs plotted for the percentage cost for the different components in the total O & M cost derived for the average cost of various RRWSS based on surface water and ground water source respectively in south and central Gujarat. From the graph it is obvious that the cost of water and treatment are quite higher in surface water based schemes as compare to the schemes based on ground water source. As the cost of O & M of pumping and cost of distribution depend much on the topography of the area and system of water supply to village, they are not much affected based on surface water or ground water as source of the scheme.
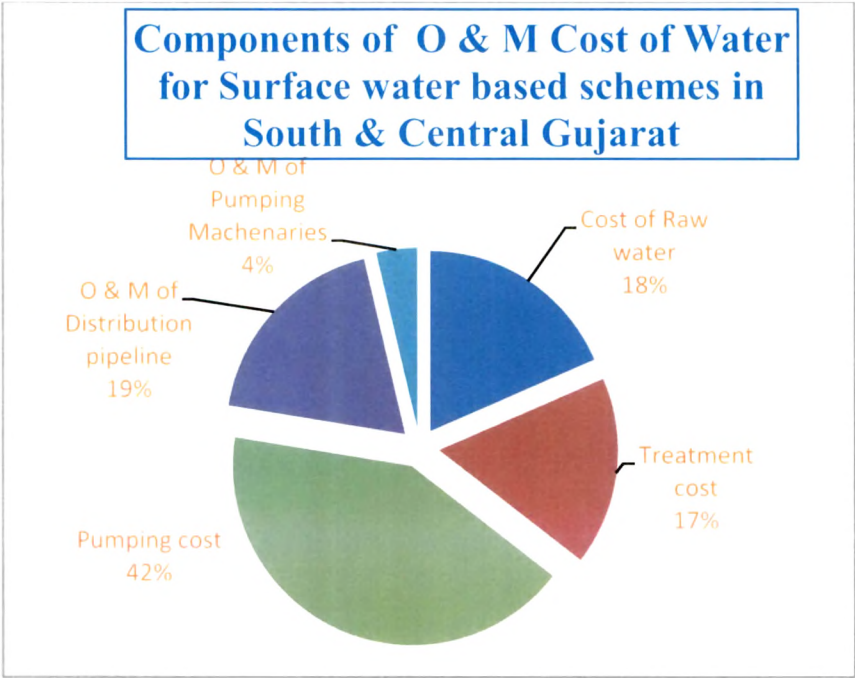
Figure 5.2 Graph Showing the Components of O & M Cost in RRWSS Based on Surface Water in South & Central Gujarat
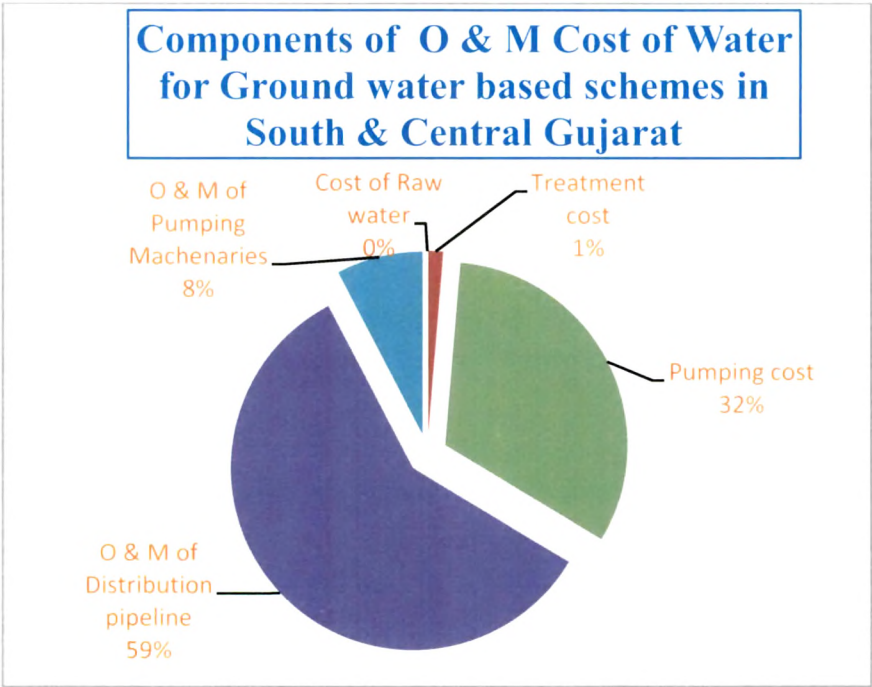

Figure 5.3 Graph Showing the Components of O & M Cost in RRWSS Based on Ground Water in South & Central Gujarat

The different data and analysis of O & M cost signifies the importance of pumping cost (electricity bills-subsidies) and therefore the detailed study on actual O & M cost with the current electricity charges has been carried out for the whole Saurashtra region, where the most RRWSS relies on bulk water supply either through Narmada canal network or bulk water pipe lines. The details of the O & M cost per KL, at different head works only are shown in chart 5.1. The calculation sheets for the same are listed in Annexure –II. The rate analysis for the O & M cost of water treatment plant based on surface water has also been carried out for the evaluation of actual O & M required for the treatment in RRWSS. Table 5.7 shows the O & M (Rate Analysis) for water treatment at various head works in Saurashtra region. The observed M & R charges at various head works vary significantly and in some head work, they are significantly high for example at Dudhala & Rojki- head work. Further, it is noticed that the cost of chemicals are about Rs. 0.15, cost of electricity is about Rs. 0.12 and the M & R charges are as low as to about Rs. 0.06 only.

However, it is also noted that the actual O & M for the water treatment plants are approximately 1% only in ground water based RRWSS; whereas about 17% in case of surface water based RRWSS in South & Central Gujarat.

Table 5.7 Showing O & M (Rate Analysis) for Water Treatment At Various Head Works In Saurashtra Region

Rate Analysis for M & R cost of treatment plant				
Name of Headwork	capacity Cum. / Hr	Duration of M & R in months	M & R in Rs. (as per tender)	Cost of M & R in Rs. Per KL (excluding material cost)
Hirapar	420	24	6,00,000	0.08
Hadala	590	24	6,00,000	0.06
Rajula	1170	24	7,20,000	0.04
Morzar	700	24	7,20,000	0.06
Dhari	200	24	4,80,000	0.14
Simran	1750	24	7,20,000	0.02
Rojki	920	24	12,00,000	0.08
Dudhala	167	24	7,20,000	0.25
tansa pasvi	2080	24	1600000.00	0.05
Average cap.	690	---	Average rate	0.06

Alum dosage 30 mg per liter for 1000 liter considering above dosage: 30 x 1000 = 30000 mg that is 30 GM/KL Taking rate of alum as Rs. 3330 per MT: **Amt required for alum = Rs. 0.099 say Rs. 0.1/KL**	chlorine dosage 5mg per liter for 1000 liter considering above dosage: 5 x 1000 = 5 GM/KL Taking rate of chlorine as Rs. 9400 per MT: **Amt required for chlorine = Rs. 0.047 say Rs. 0.05/KL**

So, Total Expenditure for Treatment of 1 KL of Water				
Amt Req. for M & R Treatment plant in Rs.	Amount Required for chlorine in Rs.	Amount Required for Alum in Rs.	Amount Required for meeting Energy cost of Treatment plant operations in Rs.	Total O & M cost for the Treatment plant in Rs.
0.06	0.05	0.1	0.12	0.33

5.3   Water Tariff and Tariff Recovery

Economic efficiency, sustainability, equity, affordability, willingness to pay and willingness to charge, etc are conflicting objectives to induce distortion and undeliverable effects for most of water supply schemes.

5.3.1 Water Tariff

While deciding water tariff, there are little consensus and controversy among reformers, policy makers and administrators. Even though this may not become a focus of criticism, but striking a balance in between is a must. Following are the factors defining water tariff:

- The water tariff shall be very simple, easy to explain, understand and implement

- The water tariff shall be generally acceptable to public/political leaders and finance agencies

- The water tariff is quite different from direct equity

- Economic efficiency on financial/social cost: The volumetric charge is set equal to marginal cost of additional quantity of water. There is no real economic incentive to economize water use.

- Equity and fairness: This is to treat similar customer equally. There is no discrimination in between rich and poor.

- Affordability: Water services are basic right to be provided regardless of whether they can pay for that or not. The water prices are to be kept low. The water supply shall be free or at minimal cost at least to poor through subsidies. The subsidy by Government of India is 4%.

5.3.2 Tariff Recovery

Cost recovery is a major concern in the present day context in investment. This is especially true in the sector when return from is not up to mark as in other production sectors. Water supply is a sector where return cannot be attained, since it yields no benefit other then assisting the community toward better health and safe environment.

The present policy of the government is thereby tuned towards participation from the beneficiaries in each investment whereby participatory role of the beneficiaries is ensured. By such measures the beneficiaries are not only contributing towards such investment but also earn a sense of ownership. It also induces a sense of proper maintenance of such capital investments and establishes a means by which the authority can rely on the society towards operation and maintenance of the installation.

5.3.3 Finding on Water Tariff and Tariff Recovery in Selected RRWSS

In RRWSS Variav group, Surat, the tariff recovery was reported as Rs. 45.10/capita per annum (2006-07) against the actual water expenses for the O & M of Rs. 66.41/capita. It is noticed that the actual norm fixed by the Govt. of Gujarat for water tariff recovery under this RRWSS is fixed as Rs. 14/capita/annum.

This tariff recovery is significantly high in terms of per capita water tariff fixed by the Government of Gujarat. The main reason for the same is due to the supply of 50% of total capacity that is 60 MLD out of 120 MLD is supplied to various industries on commercial basis. This results in balancing the tariff recovery from rural area with the share of industrial water charges. However, in this case the population of urban region of Surat is also included & the data reported that the people of

rural area were not paying the water charges regularly but only recovery is through urban area of Surat city and industries.

In RRWSS Gadhada group, Bhavnagar, the tariff recovery was reported as just Rs. 1.5 lacs (Year 2006-07) against the actual bill of Rs 21.52 lacs (as per norms of Rs. 14/capita/annum) of GWSSB to various Gram Panchayats. It is also noticed during the field visits that the most village people are capable of paying such low water tariff in the region.

In RRWSS Ishwaria group, Amreli, the water tariff recovery for year 2006-07 was nil against the norms of Rs. 14/capita/annum fixed by the Government of Gujarat for this scheme. Insufficient water availability during the summer, occasional poor water quality, poor mentality for paying the water charges against the traditional mind set of free water, and no efficient system set by state department for water tariff recovery were some of the important reasons noted during the field surveys. However, the suggestions were made for the water tariff recoveries to state local officials such as display of banners, pictures and slogans on water infrastructure facilities provided for the region, copies of the O & M cost of the previous year statement should be supplied to each beneficiary Gram Panchayat and Street play and/or other such cultural activities should be carried out to bring awareness among the people.

In RRWSS Mandvi group, Kachchh, the water tariff recovery for the period of June 2005 to March 2007 was Rs. 81,114 that is Rs. 3862.57 per month against the M & R expenses of Rs. 2,20,444 per month (average) that is about 1.75% of M &R only. The reason for low recoveries may be due to insufficient and irregular water supplies through NC 11 pipe line during this period.

5.4 Community Participation for Effective Management of RRWSS

To promote sustainability and effectiveness, community participation approach in rural water supply sector in is recent trend in present Government policy of supply driven approaches. Instead of emphasizing technical knowledge and inputs only, there is a need to focus on way of sharing other relevant tasks with communities. Community participation is not a new concept, but its application in the planning, implementation and maintenance of water supply system calls for a partnership approach.

For rural water supply system, the technology package should be simple, efficient, cost effective and economic. In other words, whatever technology is chosen, it must be sustainable with the resource available to the community.

During the studies, two important points are observed, such as 1. Different communities are not necessarily uniform in their needs and capabilities and 2. Within the communities themselves, user needs and readiness to pay/contribute also varies. As a result, a mixture of service levels particularly with respect to accessibility and per capita supply may be necessary.

The communities not only have to be informed on the project but the implementing agency must, in the first place, work with them to identify their needs and capacities. To give both the agency and the communities a good overview of the conditions and issues that have to be taken into account, it may be necessary to gather baseline data on water use and needs, socio-economic status and health and hygiene conditions of the communities concerned.

It has also been observed that community can participate in O & M by providing volunteers for training as local operators or caretakers; by paying for operation, maintenance, repairs, replacements, by problem reporting and through social control as individuals and community. However, it is also a fact that neither the implementing authority nor the community can accomplish all technical & other socio-economic matters of village water distribution system, therefore a successful performance can be achieved with good team work, communications and transparent policies.

5.5 Financial Management Performance Index (FPI)

The financial management performance of any RRWSS is dependent on the following four indicators.

- Capital cost of Water

- Operations & Maintenance cost of Water

- Water Tariff & Cost Recovery

- Community Participation

From the study of an indicator 'Capital cost of water', it is determined that the capital cost of Variav RRWSS, Surat is just Rs. 1.31 per KL, whereas same is ranging from Rs. 2.11 to Rs. 3.71 per KL for the Gadhada, Ishwaria and Mandvi RRWSS. Though all schemes are relying on surface water as source, their ultimate cost is almost double or higher. The main reason for that is the Variav scheme is situated on flat topography with minimum needs of pumping and also the overall length of pipe network required is also less compare to other three RRWSS, whereas other three RRWSS of Saurashtra and Kachchh are relying on very long pipe network of Narmada based canal & pipe network, undulant topography (rising topography for pipe network) and huge pumping machineries' cost. The similar type of cost estimates are received for the various RRWSS and the capital cost of water for each of

the RRWSS mainly rely on type of the source, topography of the area and the overall length of the pipe network, etc. Also, once the scheme is commencing and it reaches to an operational stage, this indicator plays a less important role in day to day performance of the scheme. Due to these reasons, it is suggested to monitor this indicator independently at the planning of any new RRWSS.

Therefore, to evaluate a Financial Management Performance Index (FPI), the equation 4.1 can be reduced as under.

$$FPI = \frac{\sum_{i=1}^{3} Ii\, Wi}{Wmax \times \sum_{i=1}^{3} Ii} \times 10 \qquad \text{Equation 5.1}$$

$$FPI = \frac{I1\, W1 + I2W2 + I3W3}{Wmax\, (I1 + I2 + I3)} \times 100 \qquad \text{Equation 5.2}$$

Where, W= Weights assigned to each of the indicators based on their ratings; and I= Importance factor for each of the indicators based on their impact on overall service performance and its interrelation to other indicators.

FPI varies from 0 to 100, 100 being the maximum index value with all factor rated as excellent. 0 is the minimum index value, when all the three factors have a 'poor' rating. In general, higher is the index value; better is the financial management performance of the scheme.

In order to define performance of a service based on the ratings as an Index (numerical value), four ratings may be assigned as weights (0 to 1). The selection of weights for above ratings requires skillful observations which may vary from field conditions. For a present study of Gujarat state, the selected value of weights is as per Table 5.8 (Excellent Performance, W = 1.0, Medium to High Performance, W= 0.65, Low to Medium Performance, W= 0.35, Poor Performance, W = 0.0).

Table 5.8 Showing Ratings and Weights Assigned for the Various PI's for the Evaluation of Financial Management Performance of an RRWSS

Financial Management Performance	O & M cost of water	Excellent Performance		$W_2 = 1.0$
		Medium to High Performance		$W_2 = 0.65$
		Low to Medium Performance		$W_2 = 0.35$
		Poor Performance		$W_2 = 0.0$
	Cost recovery & water tariff	Excellent Performance	At Tail reach villages cost recovery is > 70% of total tariff & at Head reach villages cost recovery is > 90% of total tariff	$W_3 = 1.0$
		Medium to High Performance	At Tail reach villages cost recovery is 50- 70% of total tariff & at Head reach villages cost recovery is 70- 90% of total tariff	$W_3 = 0.65$
		Low to Medium Performance	At Tail reach villages cost recovery is 30- 50% of total tariff & at Head reach villages cost recovery is 50- 70% of total tariff	$W_3 = 0.35$
		Poor Performance	At Tail reach villages cost recovery is < 30% of total tariff & at Head reach villages cost recovery is < 50% of total tariff	$W_3 = 0.0$
	Community participation	Excellent Performance	Formation of Pani Samitis and involvement of Gram Panchayats in cost sharing of the RRWSS and involvement in O & M of RRWSS	$W_4 = 1.0$
		Medium to High Performance	Involvement of Gram Panchayats, formation of active Pani Samitis and involvement only in O & M of RRWSS, No capital cost sharing of RRWSS	$W_4 = 0.65$

| | | Low to Medium Performance | Partial involvement of Gram Panchayat and Pani Samitis in O & M of RRWSS, No capital cost sharing of RRWSS | W_4= 0.35 |
| | | Poor Performance | No formation of Pani Samitis, Hardly any role of Gram Panchayat in O & M of RRWSS, No capital cost sharing of RRWSS | W_4= 0.0 |

Further, for the selection of importance factor for the above three indicators, it is assumed that the indicator 'Community participation' may be assigned less importance under the presence of strong governmental/organizational infrastructure. So, by keeping this in mind for the present study, the indicators such as 'O & M cost of water' and 'Cost recovery & water tariff' are assigned the double (2.0) importance factor compare to it.

Based on the above selected weights, the overall FPI is calculated for the selected four groups of RRWSS of different regions of the Gujarat state. The selected weights, importance factor and FPI for each RRWSS are as per Table 5.9.

Table 5.9 Showing Financial Management Performance Index Value for Various RRWSS Under Study Area

Name of the RRWSS	Weight (W) & Importance Factor (I)	Financial Management Performance Indicator		Overall FPI	Performance Rating
		O & M cost of Water	Cost recovery & water tariff	Community participation	
Variav Group, Surat	W	0.65	0.35*	0.65	53	Medium Performance
	I	2.0	2.0	1.0		
Gadhada Group, Bhavnagar	W	0.65	0.0	0.65	39	Low to Medium Performance
	I	2.0	2.0	1.0		
Ishwaria Group, Amreli	W	0.65	0.0	0.35	33	Poor Performance
	I	2.0	2.0	1.0		
Mandvi Group, Kachchh	W	0.65	0.0	0.0	26	Poor Performance
	I	2.0	2.0	1.0		

Note: * in case of Variav RRWSS, major portion of the water tariff recovery is from the industries using the water and the semi urban area of the newly covered area of the Surat Municipal Corporations, therefore, it is selected as 0.35